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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/525,628

02/25/2005

Eudes Dantas

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EXAMINER

ZIMMERMAN, JOSHUA D

ART UNIT

PAPER NUMBER

2854

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/525,628

Applicant(s)

DANTAS, EUDES

Examiner

Joshua D. Zimmerman

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2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Gelbart (US 6063546).

Regarding claim 25, Gelbart teaches “a process for making a flexographic printing plate (title) comprising:

providing a photopolymer having a thickness, a top surface and a bottom surface (item 10);

positioning a radiation modulation device between a source of radiation and said bottom surface of said photopolymer (item 12), said radiation modulation device including at least one predetermined area which is substantially transparent to said source of radiation (120A) and at least one predetermined area which allows the passage of only a portion of the radiation from said radiation source (120C);

exposing said photopolymer to radiation from said radiation source through said radiation modulation device for a time sufficient to cause said photopolymer to polymerize and simultaneously form a base relief thickness and a printing relief

thickness in said photopolymer, said printing relief thickness being greater than said base relief thickness (column 4, lines 27-30); and

removing uncured portions of said photopolymer to form a flexographic printing plate (column 8, lines 2-3 and column 1, lines 28-33)."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelbart (US 6,063,546) in view of Bratt et al. (US 4,229,520).

Regarding claim 17, Gelbart teaches "a process for curing a photopolymer to form a photopolymer plate (title, item 10) having a plate thickness, a top side and a bottom side, a base relief on said top side of the plate having a base relief thickness, and a printing relief on said top side of the plate having a printing relief thickness, said base relief thickness and said printing relief thickness each extending within said plate thickness (see Figure 1), comprising the steps of:

forming said plate, base relief and printing relief by exposing the photopolymer to radiation from only" one "side of said plate (column 2, lines 41-43), and

modulating the radiation applied to said photopolymer to control the thicknesses of said base relief and said printing relief (column 4, lines 14-16)."

Gelbart fails to teach that the exposing is done from the bottom side of the plate. Bratt et al. teaches a method of forming a relief pattern wherein the relief is imagewise exposed either from the top surface or the bottom surface (column 2 lines 60-67 and column 10, line 66-column 11, line 16) in order to create the relief. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to modify the method of Gelbart by exposing from the bottom surface in order to form the relief because doing so is an art-recognized suitable method for forming the relief.

Regarding claim 18, Gelbart further teaches "wherein the step of exposing said photopolymer to radiation includes simultaneously forming said base relief and said printing relief (column 8, lines 1-2. When the exposure is done all at once, the base relief and printing relief are formed simultaneously)."

Regarding claim 19, Gelbart further teaches "wherein the step of modulating the radiation includes positioning a radiation modulation device between a source of the radiation and said photopolymer (figure 5, item 106) and applying first and second levels or intensities of radiation to said photopolymer (figure 5, item 108), said first level of radiation curing the printing relief and being greater than said second level of radiation curing said base relief (when the radiation is modulated and the photopolymer is exposed from the bottom, the more intense radiation will continue through the photopolymer for a longer distance than the less intense, therefore the printing relief will be cured by the more intense radiation, and the base relief will be cured by the less intense radiation), said first and second radiation levels being determined by a digital device or an analogical film device (item 120), said modulation device pre-establishing

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one or more transparent areas for determining said first level of radiation and one or more areas with a percentile or half tone of gray for determining said second level or intensity (column 4, lines 26-44)."

Regarding claim 20, Gelbart further teaches "wherein the radiation exposure time for curing the printed relief and the radiation exposure time for curing the base relief are equal (column 8, lines 1-2)."

Regarding claim 21, Gelbart teaches "a stereographic process (title) wherein a photopolymer having a substantial thickness, a top face and a bottom face (item 10), is cured by emission of radiation through" one "face only (column 2, lines 41-43), said radiation being modulated by a radiation modulation device (column 4, lines 14-16), the radiation applied and regulated through said radiation modulating device being configured to provide different and simultaneous levels of radiation according to a predetermined pattern (column 4, lines 14-16 and 26-31), said levels of radiation varying according to a percentile of gray defined for the radiation modulation device (column 4, lines 26-44), the process comprising the steps of:

defining gray halftone areas in the radiation modulation device (column 7, lines 42-44);

defining transparent areas in the radiation modulation device (column 7, lines 42-44); and

radiating said photopolymer plate through said radiation modulation device having said gray halftone areas and transparent areas to simultaneously form a relief

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base at said bottom surface and a printing relief at said top surface (column 7, lines 65-66).”

Gelbart fails to teach that the exposing is done from the bottom side of the plate. Bratt et al. teaches a method of forming a relief pattern wherein the relief is imagewise exposed either from the top surface or the bottom surface (column 2 lines 60-67 and column 10, line 66-column 11, line 16) in order to create the relief. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to modify the method of Gelbart by exposing from the bottom surface in order to form the relief because doing so is an art-recognized suitable method for forming the relief.

Regarding the last limitation, when the radiation is modulated in accordance with Gelbart and the photopolymer is exposed from the bottom, the more intense radiation will continue through the photopolymer for a longer distance than the less intense, therefore the printing relief will be cured and created by the more intense radiation, and the base relief will be cured and created by the less intense radiation.

Regarding claim 22, Gelbart further teaches “wherein said photopolymer is a photopolymer plate (abstract).”

Regarding claim 23, Gelbart further teaches “wherein said photopolymer is a liquid photopolymer placed in a suitable receptacle (column 6, lines 12-13, and item 16)” and Bratt et al. further teach that “said receptacle having a transparent bottom (column 10, lines 34-37).”

Regarding claim 24, Gelbart further teaches “wherein the radiation level determined by said transparent areas of the radiation modulation device varies from the

border of the transparent areas to a desirable border of the gray halftone areas in order to form an angular wall between said relief base and said printing relief thereby eliminating both the dot gain and dot droop on the resultant plate (see figure 2)."

Response to Arguments

3. Applicant's arguments filed 7/02/07 have been fully considered but they are not persuasive.

4. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

5. Regarding the applicant's interpretation of the method of Bratt et al., applicant is directed to column 10, lines 20-40 which further clarify that the exposing step may be carried out either through the transparent support, or through the transparent cover sheet or overcoat layer, as suggested in column 11, lines 12-16.

6. Finally, applicant's argument that modifying the method of Gelbart to expose from the bottom surface would render the method inoperable for creating two image areas is also found unpersuasive. Exposing the photopolymer through the bottom surface with a modulation device (120) would clearly create two different exposure areas which would correspond to two different image areas. Regardless, an image consists of at least two areas: a non-printing area (the removed portions of a

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flexographic printing plate) and a printing area (the raised areas of a flexographic printing plate). Specifically, referring to claim 1 of Gelbart, cited by applicant, the "first area of the image" would correspond to the printing area and the "second area of the image" would correspond to the printing area of the printing plate. Further, the mask in claim 1 of Gelbart can be placed on any surface and the exposure step of Gelbart could be from any direction, so long as the exposure is through the mask. Clearly, this encompasses the situation claimed by applicant.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Zimmerman whose telephone number is 571-272-2749. The examiner can normally be reached on M-R 8:30A - 6:00P, Alternate Fridays 8:30A-5:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua D Zimmerman
Examiner
Art Unit 2854

jdz


JUDY NGUYEN
SUPERVISORY PATENT EXAMINER